

## INTERNATIONAL SEARCH REPORT

Rec'd PCT/PTO 25 JAN 2005

International application No.

PCT/JP03/10251

## A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl<sup>7</sup> C01G3/10

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl<sup>7</sup> C01G1/00-23/08

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

|                           |           |                            |           |
|---------------------------|-----------|----------------------------|-----------|
| Jitsuyo Shinan Koho       | 1922-1996 | Toroku Jitsuyo Shinan Koho | 1994-2003 |
| Kokai Jitsuyo Shinan Koho | 1971-2003 | Jitsuyo Shinan Toroku Koho | 1996-2003 |

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

CAS online

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages   | Relevant to claim No. |
|-----------|--|-----------------------|
| X<br>A    | JP 2001-31419 A (Sumitomo Metal Mining Co., Ltd.),<br>06 February, 2001 (06.02.01),<br>Description; page 2, right column, line 49 to<br>page 3, left column, line 11<br>(Family: none)   | 1-2, 4<br>3, 5-13     |
| X<br>A    | JP 05-262523 A (Sumitomo Metal Mining Co., Ltd.),<br>12 October, 1993 (12.10.93),<br>Description; page 2, right column, lines 17 to 40<br>(Family: none)   | 6-13<br>1-5           |
| X<br>A    | JP 47-40634 B1 (Nittetsu Mining Co., Ltd.),<br>14 October, 1972 (14.10.72),<br>Description; page 1, left column, line 35 to right<br>column, line 17; page 2, left column, line 41 to<br>right column, line 28<br>(Family: none) | 6-13<br>1-5           |

☒ Further documents are listed in the continuation of Box C.☐ See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

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"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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"&" document member of the same patent family

Date of the actual completion of the international search  
06 November, 2003 (06.11.03)Date of mailing of the international search report  
18 November, 2003 (18.11.03)Name and mailing address of the ISA/  
Japanese Patent Office

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## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages                  | Relevant to claim No. |
|-----------|---|-----------------------|
| A         | JP 09-202619 A (Sumitomo Bakelite Co., Ltd.),<br>05 August, 1997 (05.08.97),<br>(Family: none)      | 1-13                  |
| A         | JP 07-53213 A (Sumitomo Metal Mining Co., Ltd.),<br>28 February, 1995 (28.02.95),<br>(Family: none) | 1-13.                 |